GRUNDIG

COLOR TELEVISION

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ENGLISH

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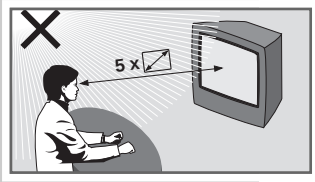
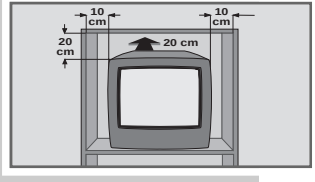
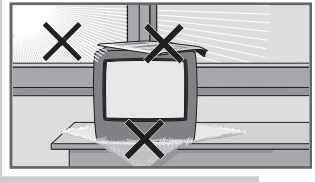
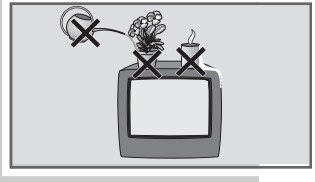
SET-UP AND SAFETY









So that this quality, easy-to-use television set continues to provide you with satisfaction and entertainment, please observe the following when setting it up.

This television set is designed to receive and replay picture and sound signals.

Any other use is expressly prohibited.

The ideal viewing distance is 5 times the screen diagonal.

External light falling on the screen impairs picture quality.

Ensure sufficient gaps to the side walls of the cabinet.

The television set is designed for use in a dry place. If, however, you use it in the open, ensure without fail that it is protected from moisture (rain, lawn sprinklers). Do not expose the television set to any moisture.

Do not place any containers filled with fluids (vases or similar) on the television set. The container could fall over and the fluid compromise electrical safety.

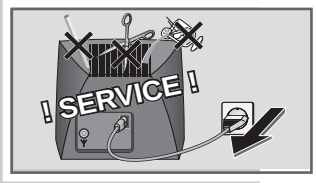
Place the television set on an even and firm surface. Do not place any objects (newspapers, for example) on the television set or any cloth or similar underneath the television set.

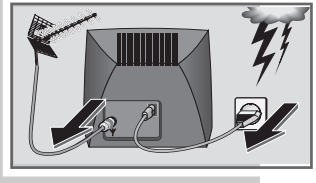
Do not place the television set close to heating units or in direct sunlight. This will affect cooling.

Heat build-up can be dangerous and reduces the service life of the set. As a safety precaution, have any deposits in the set removed by a specialist from time to time.

Keep the television set away from magnetic fields (loudspeaker units, for example).

SET-UP AND SAFETY





Do not open the television set under any circumstances. The manufacturer accepts no liability for damage arising from inappropriate treatment.

Ensure that the mains cable is not damaged.
The television set must only be operated with the mains cable set supplied.

Thunderstorms may present a danger to all electrical devices. Even if the television set is switched off, it can be damaged by a lightning strike in the mains and/or to the aerial cable. Always remove the mains and aerial plugs when a thunderstorm is imminent.

Clean the screen with a soft, damp cloth. Only use pure water.

This television set sucessfully fuses technology and environmental friendliness into a coherent total package. Predominantly ecologically compatible, high quality materials have been used. A high proportion of the casing is of recycled plastic and it is painted with ecologically compatible water-based laquers including recycled laquer. Optimum design obviates the need for flame retardants in the casing. The range of materials used has been deliberately reduced to a minimum and all the larger plastic parts have been labelled to enable effective recycling at the end of the set´s service life. This television set is easily disassembled to make servicing easier and optimise recycling.

Additional Information for Units sold in Great Britain

Units sold in GB are suitable for operation from a 240 V AC, 50 Hz mains supply.
In case this appliance is supplied with a Safety Standard Approved mains lead fitted with a non-rewireable 13 Amp mains plug which, if unsuitable for your socket, should be cut off and an appropriate plug fitted by a qualified electrician. The fuse and fuse holder must be removed from the plug as accidental insertion of the redundant plug into a 13 Amp socket is likely to cause an electrical hazard.

Note:

The severed plug must be destroyed to avoid a possible shock hazard should it be inserted into a 13 Amp socket elsewhere.
If it is necessary to change the fuse in the non-rewireable plug, the correct type and rating (5 Amp ASTA or BSI approved BS 1362) must be used and the fuse cover must be refitted. If the fuse cover is lost or damaged the lead and plug must not be used until a replacement is obtained. Replacement fuse covers should be obtained from your dealer.
If a non-rewireable plug or a rewireable 13 Amp (BS 1363) plug is used, it must be fitted with a 5 Amp ASTA or BSI approved BS 1362 fuse. If any other type of plug is used it must be protected by a 5 Amp fuse either in the plug or at the distribution board.

Important:

The wires in the mains lead are coloured in accordance with the following code:

BLUE – NEUTRAL

BROWN – LIVE

As the colours of the wires in the mains lead of your appliance may not correspond with the coloured marking identifying the terminals in your plug, proceed as follows:

Connect the BLUE coloured wire to plug terminal marked with the letter "N" or coloured black.

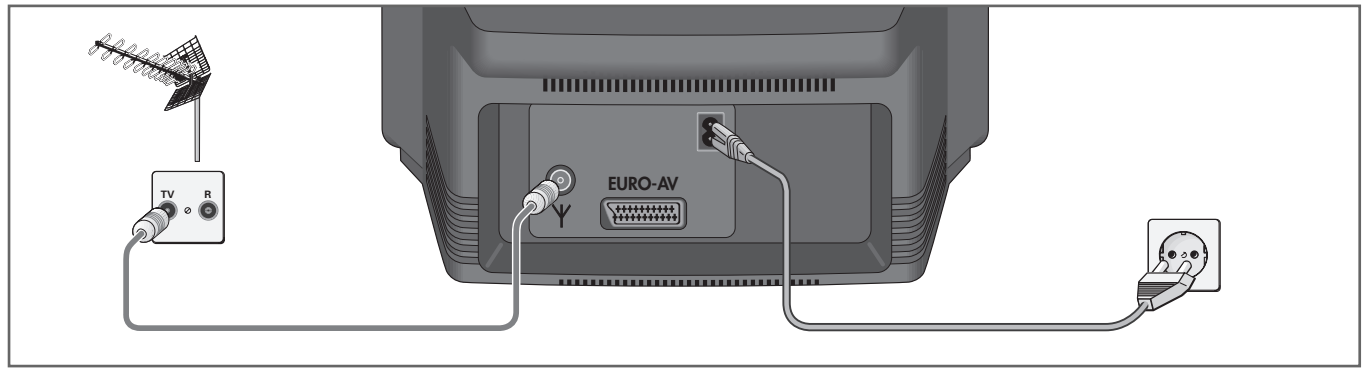
Connect the BROWN coloured wire to the plug terminal marked with a letter "L" or coloured red.

In no circumstance must any of the wires be connected to the terminal marked with a letter "E", earth symbol ⏚, coloured green or green and yellow.

Replacement mains lead can be obtained from your dealer.

CONNECTION AND PREPARATION

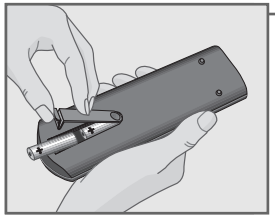
Connection



1 Insert the aerial cable jack in the aerial socket »Y« of the television set.

2 Connect the mains cable plug to the set mains socket and to the wall socket.

Inserting the batteries in the remote control



1 Open the battery compartment by pressing the snap catch and removing the lid.

2 Observe the polarity marked on the base of the battery compartment when inserting the batteries (type round cell R6, e.g. UM-3 or AA, 2 x 1,5 V).

Note:
»Batter.« will appear on the television set screen when the battery is flat.
Ensure that used batteries are removed. There is no liability for damage occuring through dead batteries.

Environmental note
Batteries including heavy-metal-free ones must not be disposed of with household waste. Please ensure the environmentally sound disposal of the used batteries, e.g. via public collection points. Get informtion on the applicable regulations.

OPERATION ON THE TELEVISION SET

Switching on/off

1 Switch on the television set with the »**IO**« button.
– If the display lights up, the television set is in stand-by mode.

2 Switch on the television set completely with the »**PROG+**« button.

3 Switch the television set off with the »**IO**« button.

Selecting the channel (Programm)

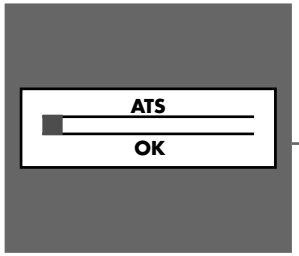
1 Select the channel using the »**– PROG+**« buttons.

Assigning Channel Positions with the ATS Automatic Channel Search and Memory System

The television set is equipped with an automatic channel search system.
You start the search and can then sort the television channels into order of preference.

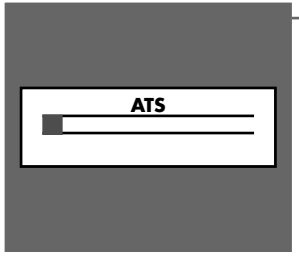
There are 69 channel positions available which as required can be assigned television channels from the aerial or from the cable connection.

You can also delete television channels from the channel list which were found more than once or which have poor reception.



1 Switch the television set on with the »**IO**« button on the television set.
– »ATS« is displayed on the screen.

Note:
If »ATS« is not displayed, press »AUX« for approx. 4 seconds until the display appears.



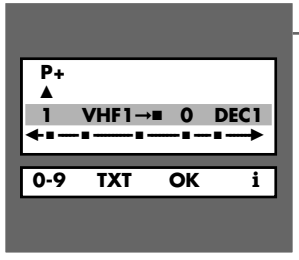
2 Start the ATS search with the »**OK**« button.
– The ATS search procedure can take over a minute.
– Once the television set has stored all television channels it will switch to channel position 1.

Note:
Further settings – such as deleting unwanted television channels or changing the order of television channels later – are described on the next page.

Details of limiting the channel position selection and manually inputting television channels can be found in the "SPECIAL SETTINGS" chapter on Page 21.

Deleting television channels from the channel table

You can delete television channels with poor quality of reception.



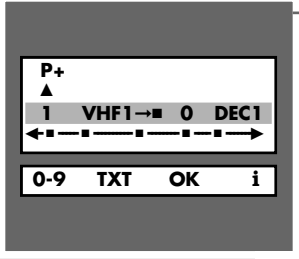
1 Call up the menu by pressing the »**i**« and then the »**OK**« buttons.
– The »Channel display« menu appears.

2 Select channel position whose channels are to be deleted with the » P- « or » P+ « buttons.

3 Delete the channel by pressing the »**TXT**« and then the »**OK**« buttons.
– The remaining television channels will move one channel position forward.
Delete further television channels by repeating points **2** and **3**.

4 End setting with the »**i**« button.

Sorting television channels



1 Select channel positions which is to be moved with the » P- « or » P+ « buttons.

2 Call up the menu by pressing the »**i**« and then the »**OK**« buttons.
– The »Channel display« menu appears.

3 Enter the new channel position with the »**0 ... 9**« buttons (as two digits) and confirm with »**OK**«.
– The two channels will exchange their channel positions.
Exchange further channels by repeating points **2** and **3**.

4 End setting with the »**i**« button.

TELEVISION MODE

Basic functions

Switching the television set on/off

1 Switch the television set on with the »**IO**« button on the television set.

2 Switch the television set to ready (stand-by) mode with the »⏻« button.
The television set is switched out of stand-by mode again with the »**0 ... 9**« or »P+« buttons.

3 Switch the television set off with the »**IO**« button on the television set.

Selecting channel positions

1 Select channel positions directly (including AV) with the »**0 ... 9**« buttons.

2 Select channel position step-by-step with the »P–« or »P+« buttons.

Changing settings

1 Adjust the volume using the »▶« or »◀« buttons.

2 Adjust the brightness using the »– ☼« or »☼ +« buttons.

3 Adjust the contrast using the »– ◑« or »◑ +« buttons.

Note:
Each altered value is stored after approx. 8 seconds.
Press »**AUX**« and then »**OK**« to reset to the factory settings.

Further functions

Displaying/concealing time

1 Display/conceal time with the »🕘« button.

Displaying/concealing channel position number

1 Display/conceal the channel position number with the »**i**« button.
– With many television channels, the station name is also displayed.

Switching sound on/off

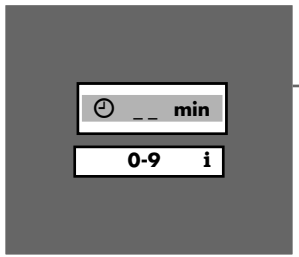
1 Switch the sound on/off with the »🔇« button.

Adjusting the black/white contrast

1 First press »**AUX**«, and then alter the contrast with »**–** ☼« or »☼ **+**«.

Setting colour contrast for NTSC transmissions

1 Set colour contrast by pressing »**AUX**« and adjust with »**–** ☼« or »☼ **+**«.



Entering the switch-off time for the Sleep Timer

1 First press »**AUX**« and then »**TXT**«.
– The »Sleep Timer« menu appears.

2 Enter sleep time (01 to 99 minutes) with »**0 ... 9**« (two digits).

3 Confirm the sleep time with the »**i**« button.
– The television set will switch off at the time entered.

TELETEXT MODE

Basic functions

Switching teletext on/off

1 Switch teletext mode on/off with the »**TXT**« button.
– Contents Page 100 or the last teletext page viewed appears.

Selecting teletext page

1 Enter the teletext page number with »**0 ... 9**« as three digits.
– The teletext page is displayed after a short delay.

2 Return to the contents Page 100 with »**i**«.

Fasttext (Flof)

The coulored bottons are for the topics listed in the dialog lines.

Paging in teletext

1 Page back 1 with »👁« (red).

2 Page forward 1 with »🕘« (green).

3 Page forward 10 with »▭« (yellow).

4 Page forward 100 with »👂« (blue).

Selecting teletext pages directly (PageCatching)

There are three-digit page numbers which can be selected directly on many contents pages.

1 Select the desired page number with »▽« or »△« and confirm with »**OK**«.
– The page is displayed on the screen after a short delay.

Further functions

Increasing character size

1 Increase the character size of the page with »◑ +«.

Calling up a sub-page.

1 Call up a sub-page using the »– ◑« button.

2 Enter the four-digit number for the desired sub-page with »**0 ... 9**«.
– The selected sub-page is displayed after a short delay.

Page stop for multiple pages

Several sub-pages can be collected under a multiple page and automatically paged through by the transmitting station.

1 Stop a sub-page using the »– ☼« button.

Reveal answer

Certain teletext pages can contain "concealed answers" or information. You can call these up.

1 Display information using the »☼ +« button.

2 Conceal information using the »☼ +« button.

Selecting functions – from the symbol line

1 Switch on teletext with the »**TXT**« button.

2 Call up the "symbol line" with the »**AUX**« button.
– The "symbol line" is displayed at the bottom of the screen.

The symbol line has the following functions:

Increase character size

Override wait time

Call up a sub-page directly

Reveal answer

Page stop

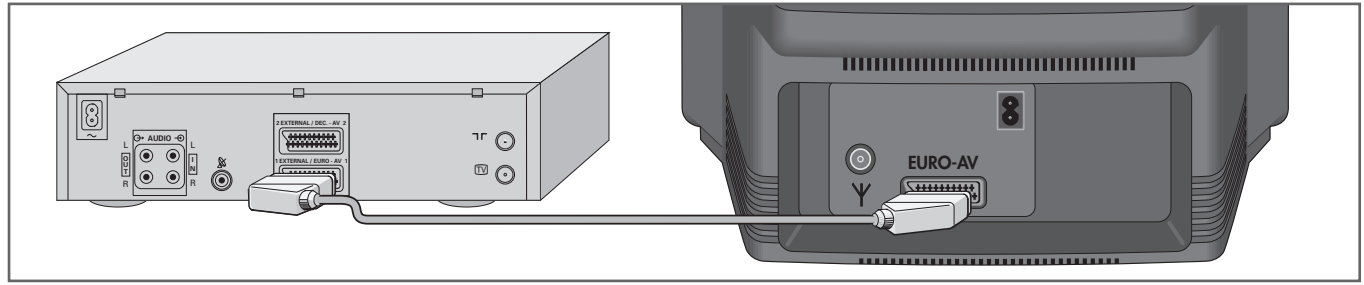
Language group selection for adapting teletext (WEST + CZ, SK EAST WEST + TR).

3 Select a function with »◀« or »▶« and call it up with »**OK**«.

4 Switch off teletext with the »**TXT**« button.

CONNECTION POSSIBILITIES

Videorecorder, satellite receiver or camcorder



Connection

1 Join up the »**EURO-AV**« socket of the television set and the appropriate socket of the video recorder or satellite receiver with a EURO-AV cable.
Use a standard adapter cable to connect a camcorder.

Operation

1 Select channel position »AV« with the »**0**« button.

2 Start play on the video or camera recorder, or switch on the satellite receiver.
– The recorder playback or the satellite programme can be seen on the screen.

CONNECTION POSSIBILITIES

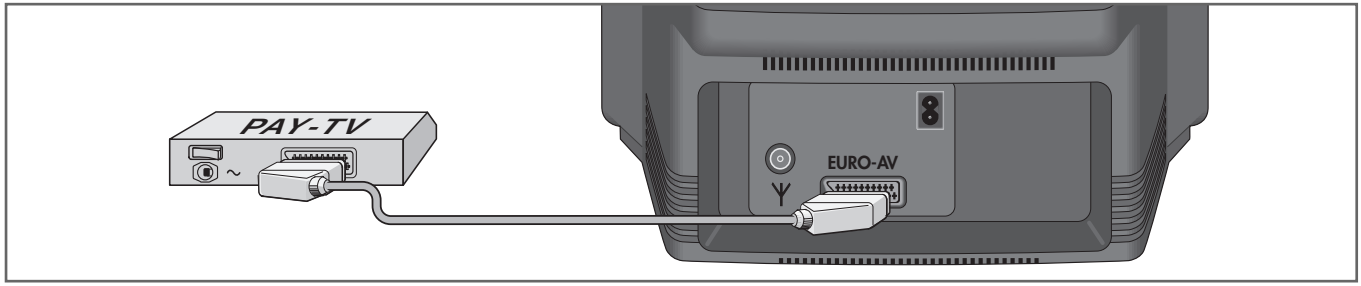
Videorecorder or satellite receiver (on aerial socket)

Video recorders or satellite receivers can also be connected to the aerial socket »Y« of the television set. The aerial must then be connected to the aerial socket of the video recorder or satellite receiver. One of the television set´s channel positions must then be tuned into the video recorder or satellite reciever. For details, see the settings in the chapter "Manually Assigning Channel Positions" on Page 21.

CONNECTION POSSIBILITIES

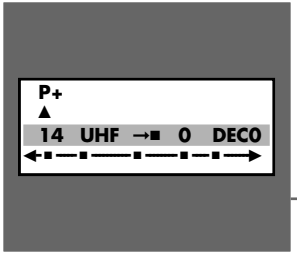
Decoder

Television programmes received from some cable or satellite stations are encoded. The picture and with some stations the sound is unrecognisable. You can decode these television programmes with a decoder.



Connection

1 Connect the »**EURO-AV**« socket of the television set and the appropriate socket of the decoder with a EURO-AV cable.



Settings for operation with a decoder

1 Select channel position of the encoded television channel.

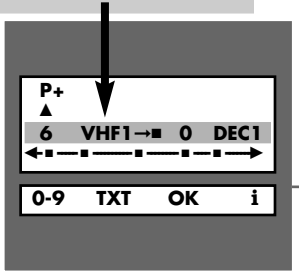
2 Call up the menu by pressing the »**i**« and then the »**OK**« buttons.
– The »Channel display« menu appears.

3 Select display »DEC 0« with »▶« and with »P-« or »P+« select the setting »DEC1«.

4 Save setting with »**OK**« and end with »**i**«.

SPECIAL SETTINGS

Limiting channel position selection

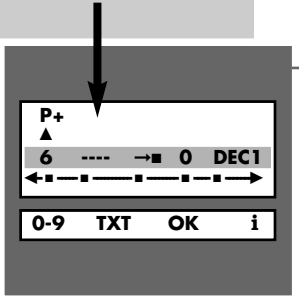


The ATS search stores all the television channels it finds and automatically "blocks" onto the first non-assigned channel position.
This means that only the found television channels can be selected with the step-by-step channel position selection using » P- « or » P+ «.
This limit can also be manually entered. The example shows "blocking" after channel position 6.

1 Call up the menu by pressing the »**i**« and then the »**OK**« buttons.
– The »Channel display« menu appears.

2 Select channel position 6 with the » P- « or » P+ « buttons.

3 Select display »VHF 1« or »VHF 3 or UHF« with » ▶ « and with » P- « or » P+ « select the setting »----«.



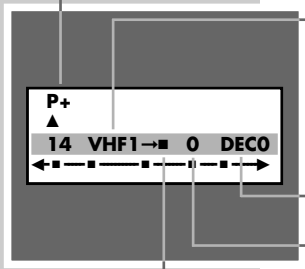
4 Save setting with »**OK**« and end with »**i**«.
– Now only the first 5 channel positions (and channel position »AV«) can be selected with » P- « or » P+ «.
– All the channel positions set including the "blocked" ones can stil be selected with »**0 ... 9**«.
– If everything after channel position 11 is blocked, all channel positions can be seleced with »**0 ... 9**«.

Manually Assigning Channel Positions

You only need this setting if, for example a new cable channel is offered and you want to retain your specific channel position sequence (e.g. BBC1 = 1, BBC2 = 2 etc.).
The example shows a new television channel in the frequeny band »UHF« to be set at channel position »14«.

1 Call up the menu by pressing the »**i**« and then the »**OK**« buttons.

The settings are made with the help of the menu.
Positions can be selected with »◄« or »►«:



P+ 1 – Channel position from 1 to 69;

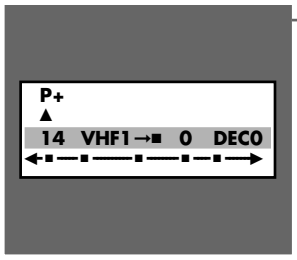
VHF1 – Frequency band
VHF 1 (45 MHz – 137 MHz, C02 – C04, S01 – S05),
VHF 3 (137 MHz – 403 MHz, C05 – C12, S06 – S33),
UHF (403 MHz – 860 MHz, S34 – S41, C21 – C69),
---- channel position limitation;

DEC 0 – Decoder, DEC 1 – Decoder on, DEC 0 – Decoder off;

0 – Television norm (0 = PAL, BG 1 = PAL DK/K'/D);

→■ – Search.

Select the current setting with »P-« or »P+«.



2 Select channel position »14« with » P- « or » P+ «.

3 Select display »VHF 1« with » ▶ « and with » P- « or » P+ « select the setting »UHF«.

4 Select display »0« with » ▶ « and with » P- « or » P+ « select the television norm.
(The setting »0« is for PAL, B G, the setting »1« is for PAL DK/K'/D).

5 Select display » → ■ « with » ▶ « and press » P- « once.
– The display »Channel search« appears.

6 Start channel search by pressing » ◀ « or » ▶ « and holding down until the search starts.
– The channel search stops at each television channel received.
– Repeat the search until the desired television channel appears on the screen.

Note:
Picture and sound can be fine-tuned by pressing » ◀ « or » ▶ « briefly.

7 End channel search with »**i**«.

8 Save the setting for this channel position with »**OK**«.
– Set further television channels by repeating the procedure from step **2**.

9 End setting with the »**i**« button.

REMOTE CONTROL OF EXTERNAL DEVICES

You can also use this remote control to operate GRUNDIG video recorders and satellite receivers.

Remote control of a Grundig video recorder

1. Point the remote control at the video recorder.
2. Press and hold down »**VIDEO**«.
3. The following list shows which buttons can be used to operate the functions of the video recorder.

   » P- « » P+ « – Channel position up, down;
   »**i**« – Record;
   »**OK**« – Play;
   » ▷|| « – Pause;
   » ◀ « » ▶ « – Frame scan backwards, forwards;
   »**0**« – Stop.

Remote control of a Grundig satellite receiver

1. Point the remote control at the satellite receiver.
2. Press and hold down »**SAT/TV**«.
3. Select satellite channel with the » P- « or » P+ « buttons.
4. Switch the satellite receiver to ready (stand-by) mode with the »⏻« button.
5. Switch the satellite receiver out of ready (stand-by) mode with the »**0 ... 9**« or » P+ « button.

TECHNICAL DATA

Servicing notes for dealers:

The television set must only be operated with the mains cable set supplied. This prevents mains malfunctions and is required for the device certification.
Please only order replacement cable sets with the designation »Part number 8290-991-220«.

CE The product conforms to the following EU guidelines:
73/23/EWG guideline for electrical equipment to be used within defined voltage ranges.
89/336/EWG guideline on electromagnetic compatibility.

The device complies with the standards:
EN 60065, EN 55013, EN 55020

Unauthorised treatment and in particular alteration of the voltage or installation of a picture tube of a different type may result in X-ray emissions of considerable strength. Such altered television sets no longer conform to the certification and must not be used.

Technical data

Mains voltage:	220–240 V, 50/60 Hz, (Regulated range of power supply 165…265 V)
Power consumption:	in operation, approx. 55 W, in ready mode approx. 10 W
Reception ranges:	C01…C99, Special channels S01…S41
Final sound stage:	2 W Music power (1 W sine)

CORRECTING MALFUNCTIONS YOURSELF

If the remedies below are not sucessful, please consult an authorised GRUNDIG dealer. Please bear in mind that malfunctions can also be caused by external devices such as video recorders or satellite receivers.

Malfunction	Possible cause	Remedy
no picture or sound	no mains voltage	Is mains cable connected? Is mains switch on?
	television set in ready mode	switch on with remote control
	television set at a non-occupied AV channel position	switch to a different channel position
Screen lit (snow or blue) but no transmission visible	aerial cable	Is aerial cable connected? Is aerial system O.K.?
	no television channel programmed	Start channel search
poor picture contrast	picture settings mis-set	Alter brightnes, contrast or colour setting
	Problem at station	test with another channel
Interference to picture and/or sound	Malfunctions due to other devices (household devices, mobile ´phones, etc.)	Change the position of the set
Ghost image, reflection	Channel settings	automatic or manual channel setting/fine tuning
	aerial	have aerial or system checked
no colour	Colour intensity at minimum	turn colour up
	TV- norm setting (if setting option available)	select correct colour norm
	Problem at station	test with another channel

CORRECTING MALFUNCTIONS YOURSELF

Malfunction	Possible cause	Remedy
wrong colour or colour spots	strong magnetic field due to e.g. loudspeaker units	Increase distance between telvision set and loudspeaker
		if colour spots remain, switch off television set at mains and switch on again after 10 minutes
	Malfunction due to the earth´s magnetic field	Alter position of set
picture but no sound	Volume set to minimum or loudspeaker switched off	Turn up/switch on loudspeaker
	Volume control via audio cinch socket active (if provided)	Select sound output via loudspeaker
	Problem at station	test with another channel
	SAT mode	Check AV cabling between television set and satellite receiver
sound indistinct	Sound setting	Correct sound setting
teletext missing or faulty	Television channel (has no teletext) or aerial system	check with another television channel, possibly ghost image or reflection or finetuning
	Station signal too weak (picture interference)	Check aerial system
Remote control has no effect	no optical connection	Point the remote control at the television set
	batteries in the remote control	Check or replace the batteries observing polarity
	operating condition undefined	Switch off television set at the mains switch for approx. 2 mins.

HELP WITH MALFUNCTIONS

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